

## **I. AMENDMENTS TO THE CLAIMS:**

**Replace the existing claims with the following version in which claims 1, 3, 6 and 7 have been amended and in which new claims 19-21 have been added.**

1. (Currently Amended) A high-density electrical connector comprising:  
a housing which holds a plurality of conductive terminals, the terminals having contact portions for mating to opposing contact portions of opposing terminals of a mating connector, said terminals including at least first and second distinct sets of terminals, each distinct set of terminals including only a pair of differential signal terminals and an associated ground terminal, said housing being formed from at least first and second interengaging segments, each of the segments supporting only the pair of differential signal terminals and associated ground terminal, the first of said segments supporting only the first distinct set of terminals, and said second of said segments supporting only the second distinct set of terminals; and  
the two distinct sets of terminals being disposed in at least two rows on said housing, one of the two rows including a pair of differential signal terminals from said first distinct set of terminals and a ground terminal from said second distinct set of terminals, the other of said two rows including a pair of differential signal terminals from said second distinct set of terminals and a ground terminal from said first distinct set of terminals, said first and second distinct sets of terminals being inverted with respect to each other within said housing.
2. (Original) The high-density connector of claim 1, wherein each of said housing first and second interengaging segments include complementary-shaped projections and recesses.
3. (Currently Amended) The high-density connector of claim [±] 2, wherein said housing first and second interengaging segment complementary-shaped projections and recesses are disposed on opposing sides of said segments.
4. (Original) The high-density connector of claim 3, wherein each of said housing first and second interengaging segment complementary-shaped projections and recesses are wedge-shaped.

5. (Original) The high-density connector of claim 1, wherein said terminals include contact portions extending from a first face of said housing segments and tail portions extending from a second face of said housing segments.
6. (Currently Amended) The high-density connector of claim 5, wherein said first and second faces are disposed on opposite sides of said housing segments.
7. (Currently Amended) The high-density connector of claim 1, further including an exterior carrier member that engages said housing segments and holds them together as a unit.
8. Cancelled
9. (Original) The high-density connector of claim 5, wherein, for each of said housing segments, said signal terminal contact portions are spaced apart from each other in a horizontal direction and said ground terminal contact portion is spaced vertically apart from said signal terminal contact portions.
10. Cancelled
11. (Original) The high-density connector of claim 2, wherein each of said housing first and second interengaging segment complementary-shaped projections and recesses includes mortise and tenon members.
12. (Original) The high-density connector of claim 1, wherein said terminals are arranged in a triangular pattern in each of said housing segments, such that said two differential signal and said associated ground terminals are arranged at vertices of an imaginary triangle and maintain the triangular pattern through said housing segments.
13. (Original) The high-density connector of claim 5, wherein said terminal contact portions are arranged in a triangular pattern on said housing segment first faces, whereby said contact portions of said two differential signal and said associated ground terminals are

arranged at vertices of an imaginary triangle when viewed from said first faces thereof.

14. (Original) The high-density connector of claim 13, wherein said terminal tail portions are arranged in a triangular pattern on said housing segment second faces, whereby said tail portions of said two differential signal and said associated ground terminals are arranged at vertices of an imaginary triangle when viewed from said second faces thereof.
15. (Original) The high-density connector of claim 2, wherein said projections and recesses are sized so as to leave air gaps between portions adjacent ones of said interengaging housing segments.
16. (Original) The high-density connector of claim 15, wherein the air gaps extend in horizontal directions.
17. (Original) The high-density connector of claim 15, wherein said air gaps extend in vertical directions.
18. (Newly Added) The high-density connector of claim 1, wherein said housing first and second segments have different dielectric constants.
- 19 (Newly Added) A high-density electrical connector comprising:
  - a housing which holds a plurality of conductive terminals, the terminals having contact portions for mating to opposing contact portions of opposing terminals of a mating connector, said terminals including at least first and second distinct sets of terminals, each distinct set of terminals including a pair of differential signal terminals and an associated ground terminal, said housing being formed from at least first and second interengaging segments, the first of said segments supporting said first distinct set of terminals, and said second of said segments supporting said second distinct set of terminals, the housing first and second interengaging segments include complementary-shaped projections and recesses; and
  - the two distinct sets of terminals being disposed in at least two rows on said

housing, one of the two rows including a pair of differential signal terminals from said first distinct set of terminals and a ground terminal from said second distinct set of terminals, the other of said two rows including a pair of differential signal terminals from said second distinct set of terminals and a ground terminal from said first distinct set of terminals, said first and second distinct sets of terminals being inverted with respect to each other within said housing and the projections and recesses being sized so as to leave air gaps between portions adjacent ones of said interengaging housing segments.

20 (Newly Added) The high-density connector of claim 19 wherein the air gaps extend in horizontal directions.

21 (Newly Added) The high-density connector of claim 19 wherein said air gaps extend in vertical directions.

## **II. INFORMATION DISCLOSURE STATEMENT**

Pursuant to 37 CFR 1.97 and 1.98, the references listed on the enclosed Form PTO-1449 are submitted for consideration in this application by the Examiner in the examination of the above-identified patent application. The full consideration of the references in their entirety by the Examiner is respectfully requested and encouraged. Also, it is respectfully requested that the references be entered into the record of the present application and that the Examiner place his or her initials in the appropriate area on the enclosed Form 1449, thereby indicating the Examiner's consideration of each of the references. The Commissioner is authorized to charge the appropriate consideration fee in this matter or credit and overcharges into his application to deposit Account No. 50-1873.

The submission of the references listed on the Form 1449 is for the purpose of providing a complete record and is not a concession that the references listed thereon are prior art to the invention claimed in the patent application, or that non-patent references listed thereon are publications or otherwise prior art to the invention claimed in the patent application. The right is expressly reserved to establish an invention date earlier than the above-identified filing date in order to remove any reference submitted herewith as prior art should it be deemed appropriate to do so.

Further, the submission of the references is not to be taken as a concession that any reference represents art that is relevant or analogous to the claimed invention. Accordingly, the right to argue that any reference is not properly within the scope of prior art relevant to an examination of the claims in the above-identified application is also expressly reserved.

This art cited includes the following and copies are provided with this submission.

### **I. PUBLICATIONS**

1. Meeting Minutes from VESA Flat Panel Display Interface Committee, June 13, 1996, VESA DOC # FPD 96/43
2. Presentation by Don Chambers of JAE Electronics, Inc. "Considerations for Connectors for the Vesa Flat Panel Display Interface-2, VESA Doc FPD 96/39, Date believed to be June 13, 1996.
3. Presentation by JAE Electronics, Inc. "I/O Connector for LCD Display FI Series (for Vesa FPD 96/39), VESA Doc # FPD 96/39, date believed to be 13 February 1997.

A copy of each of the above noted references is enclosed as is a completed Form PTO-1449. This should not be construed as a representation that a search has been performed by applicants.